

REMARKS

In response to the Office Action dated March 26, 2009, claims 1, 14, 24, 42, 45, 48 and 56 have been amended. Claims 2-3, 10-13, 15-17, 20-22, 25-27, 30-41, 44, 51-55, 57-58 and 60-65 are now canceled. Claims 1, 4-9, 14, 18-19, 23-24, 28-29, 42-43, 45-50, 56 and 59 are pending in the application.

In paragraph 3 on page 3 of the Office Action, claims 1, 3-9, 14, 18, 19, 23, 24, 28, 29, 42, 43, 45-50, 52-56 and 58-64 were rejected under § 103(b) as being unpatentable over Banker in view of Hoarty and Palazzi.

Applicant respectfully traverses the rejection, but in the interest of expediting prosecution has amended the claims.

Independent claim 1 sets forth an interface signal path for providing communication with a microprocessor of the set top terminal for routing subscriber input provided by the microprocessor of the set top terminal and providing data to the microprocessor of the set top terminal, a modem for communicating with one or more headends, wherein the set top terminal receives television program signals based on the subscriber input received from the microprocessor of the set top terminal, a hardware upgrade microprocessor, coupled to the modem, the hardware upgrade microprocessor being directly connected to the microprocessor of the set top terminal by the interface signal path when the hardware upgrade is inserted into a card receiving slot, the hardware upgrade microprocessor providing enhanced functional capabilities to the set top terminal and memory, coupled to the hardware upgrade microprocessor, for storing data therein, wherein the hardware upgrade is a card insertable into the card receiving slot of the set top terminal, the hardware upgrade microprocessor being coupled to a modulator and

demodulator to add a data modulation and demodulation function to the set top terminal such that data may be retrieved by the modem from the one or more headends and stored in the memory, wherein the data received by the modem comprises information from an interactive service for accessing an on-line database thereby allowing a user to use the set top terminal to engage in actual transactions using two-way communications over the modem with the interactive service via submenus provided by the hardware upgrade microprocessor as an overlay to a program displayed by the microprocessor of the set top terminal and wherein the microprocessor upgrade processes data and instructions stored in the memory to provide enhanced functional capabilities for the set top terminal and to process subscriber inputs received from the set top terminal.

Banker merely describes subscriber terminals 40, 44 and 48 that include a modem and telephone link 52 to a telephone processor 16 at the headend 10. Further, Banker discloses that the subscriber terminals include microprocessors 128, 136. More particularly, Banker discloses an expansion card may be connected to the subscriber terminal. Banker states that expansion card 138 is a printed circuit card which contains memory and/or secure microprocessor components, which can be plugged into a connector 200. Additional program or data memory, or renewed security can be provided by the expansion card 138.

Nevertheless, Banker fails to disclose an interface signal path directly connecting a microprocessor of a set top terminal and a hardware upgrade microprocessor. Rather, Banker discloses a card that is inserted into a card slot. The card is directly connected to a multifunction control circuit (MCC) 104. Processor 128 is then connected directly to the memory control module 112 of the MCC 104. Thus, Banker does not disclose, teach

or suggest an interface signal path directly connecting a microprocessor of a set top terminal and a hardware upgrade microprocessor.

The Office Action admits that Banker fails to disclose a hardware upgrade microprocessor that is coupled to a modulator and demodulator to add a data modulation and demodulation function to the set top terminal such that data may be retrieved by the modem from the one or more headends and stored in the memory. The Office Action cites Hoarty to disclose a modulator and demodulator. Hoarty is discussed below.

Banker further fails to suggest a hardware upgrade microprocessor that allows a user to use the set top terminal to engage in actual transactions using two-way communications over the modem with the interactive service via submenus provided by the hardware upgrade microprocessor as an overlay to a program displayed by the microprocessor of the set top terminal. Banker fails discuss a hardware upgrade microprocessor that overlays submenus on a program being displayed by a set top terminal microprocessor.

Thus, Banker fails to disclose, teach or suggest the invention as defined in independent claims 1, 14, 24 and 42.

Hoarty fails to overcome the deficiencies of Banker. Hoarty is merely cited as disclosing a home interface controller 13 that includes input and output connections 261 for cable television RF. The home interface controller 13 also includes an expansion interface 263 for a modem. The Office Action further cites Hoarty as disclosing a modulator and demodulator. However, Hoarty only discloses modulators/demodulators being disposed in a set top terminal. Hoarty fails to suggest using modulators/demodulators in a hardware upgrade with a hardware upgrade microprocessor

to provide enhanced functional capabilities to a set top terminal via a hardware upgrade processor connected directly to a processor in a set top terminal.

Thus, Banker and Hoarty, alone or in combination, fail to disclose, teach or suggest the invention as defined in independent claims 1, 14, 24 and 42.

Palazzi fails to overcome the deficiencies of Banker and Hoarty. Palazzi is merely cited as disclosing a modem for communicating with a remote database. However, Palazzi fails to mention an interface signal path directly connecting a microprocessor of a set top terminal and a hardware upgrade microprocessor.

Palazzi also fails to disclose a hardware upgrade microprocessor that is coupled to a modulator and demodulator to add a data modulation and demodulation function to the set top terminal such that data may be retrieved by the modem from the one or more headends and stored in the memory.

Palazzi further fails to suggest a hardware upgrade microprocessor that allows a user to use the set top terminal to engage in actual transactions using two-way communications over the modem with the interactive service via submenus provided by the hardware upgrade microprocessor as an overlay to a program displayed by the microprocessor of the set top terminal. Palazzi fails to discuss a hardware upgrade microprocessor that overlays submenus on a program being displayed by a set top terminal microprocessor.

Thus, Banker, Hoarty and Palazzi, alone or in combination, fail to disclose, teach or suggest the invention as defined in independent claims 1, 14, 24 and 42.

4-9, 18-19, 23, 28-29, 43, 45-50, 56 and 59 are pending in the application.

Dependent claims 4-9, 18-19, 23, 28-29, 43, 45-50, 56 and 59 are also patentable over the references, because they incorporate all of the limitations of the corresponding independent claims 1, 14, 24 and 42, respectively. Further dependent claims 4-9, 18-19, 23, 28-29, 43, 45-50, 56 and 59 recite additional novel elements and limitations.

Applicant reserves the right to argue independently the patentability of these additional novel aspects. Therefore, Applicant respectfully submits that dependent claims 4-9, 18-19, 23, 28-29, 43, 45-50, 56 and 59 are patentable over the cited references.

On the basis of the above amendments and remarks, it is respectfully submitted that the claims are in immediate condition for allowance. Accordingly, reconsideration of this application and its allowance are requested.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Attorney for Applicant, David W. Lynch, at 865-380-5976. If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 13-2725 for any additional fee required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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